

PATENT ABSTRACTS OF JAPAN

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(71)Applicant : MITSUBISHI ELECTRIC CORP

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(54) SEMICONDUCTOR DEVICE

(57)Abstract:

PURPOSE: To protect a chip end surface, and prevent cracks and breaks at the time of handling, by wrapping the dicing region of a substrate with a heat dissipating electrode (PHS) formed on the rear of the substrate.

CONSTITUTION: A base metal layer 12 for forming a PHS is formed on the rear side of a thinned GaAs substrate 1, and a resist pattern 11 for selectively forming the PHS metal layer is formed on the rear side, except a part corresponding with a dicing region. A PHS 13 is formed by plating PHS on the base metal layer 12 by electroplating. After the resist pattern 11 used as a mask is eliminated, the metal layer 12 and an electroplated layer 5 in the dicing region are selectively eliminated by etching using the PHS 13 as a mask, and chip dividing is performed. After that, square chips in the divided state are exfoliated from a glass substrate 6, and washed.

